International Agency for Research on Cancer



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DIRECTOR'S REPORT

1. This Director's Report covers the period since the 57th session of the Governing Council, and includes data on the Key Performance Indicators for the calendar year 2015.

2. The IARC Biennial Report 2014–2015 (see document <u>GC/58/2</u>) provides an overview of the full range of the Agency's scientific achievements over the past two years. The present Report provides complementary information and selected highlights of the Agency's work over the reporting period.

Highlight Events

3. The Agency's 50th Anniversary has been a time to celebrate achievements but also to set the future strategy and directions of the organization. The City of Lyon kindly hosted a formal celebration at the Hôtel de Ville, immediately after the 57th session of the Governing Council. The event was attended by current and previous IARC personnel, scientific collaborators and friends, colleagues from WHO, Governing Council representatives, and local French dignitaries. During this event the IARC Medals of Honour were awarded to Her Royal Highness Princess Lalla Salma of Morocco, and to Her Royal Highness Princess Dina Mired of Jordan, in recognition of their outstanding leadership and advocacy for cancer control worldwide. The Agency also marked this occasion with the publication of a book "IARC: the first 50 years, 1965–2015" providing an overview of the Agency's origins, development and major contributions.

4. The new IARC Medium-Term Strategy (2016–2020) (MTS) was launched in January, building on a vision of conducting "cancer research for cancer prevention". The 50th Anniversary celebrations will conclude this year with a major international conference which is taking place on the 7–10 June in Lyon. The scope of the conference is aligned with the themes of the IARC MTS and is entitled: "Global cancer occurrence, causes and avenues to prevention". The conference will bridge cancer research through to cancer control and policy.

5. As well as bringing some of the most renowned cancer research experts in the world to the conference, IARC is giving fifty emerging cancer researchers from low-and middle-income countries (LMICs) the opportunity to attend the conference and to participate in a dedicated pre-conference workshop "Fostering Leadership in Cancer Research" on 6–7 June. The purpose of this "50 for 50" initiative is to support the development of the next generation of cancer research leaders in the developing world, leaving a legacy of the first 50 years of IARC's existence.

This opportunity was only possible through the generous support of donors, including a number of IARC Participating States.

6. The IARC "Junior Investigator Awards" were launched in 2015 with the aim of encouraging junior investigators working at the Agency to develop innovative, high-risk research projects and to gain experience as a principal investigator in obtaining competitive research funding. The awards are open to students, post-doctoral fellows, and staff up to and including P2 level (e.g. technicians, statistical assistants, database managers, scientists, etc.). In 2016–17, after peer-review by Scientific Council members, the Director made four awards from among the 20 applications with a total investment of €83 750. Overall the quality of the applications was extremely high.

Strategic Partnerships

7. At the 57th session of the Governing Council, the Agency was pleased to welcome Morocco as its 25th IARC Participating State, the first from the African continent. This is a reflection of the growing collaborations between IARC and Moroccan scientists and is a testimony to Morocco's commitment to develop cancer research internally and regionally. This step is also consistent with the Agency's ongoing effort to broaden the participation on the Governing Council to countries from underrepresented regions. Over the past year the Director continued to engage in high-level discussions with countries that have expressed an interest in becoming IARC Participating States in the future.

8. IARC is fully engaged in the activities of the United Nations Interagency Task Force (UNIATF) on the Prevention and Control of Noncommunicable Diseases (NCDs). The Task Force was established by the UN Secretary-General in 2013 to coordinate the activities of UN organizations and other inter-governmental agencies, supporting governments to meet commitments made in the 2011 UN Political Declaration on NCDs. Two of the four joint projects currently being developed in the context of the UNIATF are on cancer: a joint project between IARC, WHO and the International Atomic Energy Agency (IAEA) supporting cancer prevention and control in LMICs; and a project on cervical cancer involving seven UN organizations and inter-governmental agencies including IARC. The Agency has been actively involved in planning both projects, which are expected to begin implementation in 2016–17.

9. In parallel with these initiatives the Agency continued to develop its network of partnerships with regional organizations. Notably, in February 2016 the Director received representatives of the Latin-American Network of National Cancer Institutes ("Red de Institutos Nacionales de Cáncer" – RINC) to discuss IARC's participation in the Regional Plan of Integrated Actions for Prevention and Control of Cervical Cancer in South America, an initiative of the Council of Ministers of the UNASUR (an intergovernmental organization comprising 12 South American countries) coordinated by the RINC. The Agency will support this initiative by providing technical expertise, including through the participation of one of its senior scientists in the Executive Committee. The collaboration builds on the successful partnership developed over the last few years with the RINC, in particular through IARC's participation in two Working Groups, in the areas of cervical cancer and cancer registration.

10. The Director hosted a meeting with senior representatives of the European Commission's (EC) Directorate-General for Health and Food Safety (DG SANTE) and the Joint Research Centre, Institute for Health and Consumer Protection (JRC-IHCP). The meeting helped outline the areas and modalities for collaborative work between IARC and these organizations, notably in cancer registration, cancer screening and the European Code against Cancer. The Director also hosted a visit by the European Union (EU) Commissioner for Health and Food Safety, Dr Vytenis Andriukaitis to discuss areas of common interest, including the importance of cancer prevention in Europe.

11. One aspect of IARC's remit, emphasized during the preparation of the new IARC MTS (2016–2020), is to help shape the international cancer research agenda. In this context, the Agency has been committed to promoting investment in cancer prevention, as a necessary complement to cancer treatment. One specific opportunity has come through the EC-funded EurocanPlatform project where IARC took the lead in the area of cancer prevention. This culminated in an international workshop at the Agency in July 2015 and the production of a position paper entitled "Cancer Prevention: where are we and where do we need to be". The Agency is formally a member of the EC Cancer Expert Group, comprised predominantly of EU Member States and it is planned to present this paper for further discussion to the Expert Group in the coming year.

12. There is a severe shortage of trained cancer pathologists in many LMICs combined with a lack of validated protocols and guidelines for pathology reporting appropriate to the conditions and technologies available in these regions. In June 2015 IARC signed a Memorandum of Understanding with the International Collaboration on Cancer Reporting (ICCR), an umbrella organization linking five leading pathology societies (from Australasia, Canada, Europe, the United Kingdom and the United States) to collaborate on the development of standardized, evidence-based cancer pathology datasets to improve the quality of cancer pathology reporting worldwide. The agreement also enables coordination between the preparation of the WHO Classification of Tumours series by IARC and the standard reporting being developed by the ICCR.

International ranking

13. A series of key performance indicators (KPIs) are presented each year in the Director's Report, to enable monitoring of trends in the Agency's performance in specific areas.

14. Since the 54th session of the Governing Council, results from the SCImago Institutions Rankings (SIR – <u>http://www.scimagoir.com</u>) have been included in the Director's report, as indicators of the quality and impact of the Agency's research. This is one of the most comprehensive international rankings of research organizations based on bibliometric analyses of publications output. It is compiled by an independent organization and has the advantage of providing an impartial assessment, enabling comparison between institutes with the same or similar research profiles. Unfortunately this year SCImago have not yet released an updated analysis of publications for 2015.

15. Another independent international comparison of publications output quality, "Mapping Scientific Excellence" (<u>www.excellencemapping.net</u>), listed IARC in the 27th and 30th position for

"Best Paper Rate" and "Best Journal Rate" respectively¹ out of 1593 institutions in the "Medicine" category (12th and 17th last year out of 1309 institutions), i.e. within the top 2% of institutions.

16. The limitations of bibliometric-based rankings are well recognized and their results need to be interpreted with caution, however they do provide an independent assessment that is comparable year-on-year. The Agency's continuing strong performance amongst the leading medical research institutes and amongst the top specialized cancer research centres is one testimony to the high-quality and impact of the research it conducts with its collaborators worldwide.

Publications

17. In 2015, Agency scientists published a total of 342 articles in 150 journals, of which 300 (88%) were peer-reviewed papers. The total number of articles was similar to recent years, with the proportion of peer-reviewed papers slightly higher, consolidating the increases observed from preceding years (see Table 1).

Year	Peer-reviewed papers	Letters to Editor or comments	Invited reviews	Editorials, news, other	Total
2012	249 (76%)	15	29	33	326
2013	287 (84%)	6	35	13	341
2014	299 (84%)	12	30	16	357
2015	300 (88%)	11	17	14	342

Table 1: Publications – Articles

18. Articles published by IARC scientists in 2015 were assessed in relation to the percentage appearing in the top 20% of journals in their subject category, according to the classification in the Thomson Reuters databases (Web of Science and Journal Citation Reports – see Table 2). Overall, 62% of articles were published in the top 20% of journals in their subject categories, comparable to previous years (60% in 2014, 66% in 2013, 65% in 2012, and 57% in 2011).

19. Oncology and Public, Environmental and Occupational Health comprise the top two categories, accounting for a large proportion of the papers published (~60% of the total). The percentage of papers in the top 20% of journals in these two categories varied slightly in relation to the previous year (55% and 72% respectively), but these fluctuations do not follow a set trend and are likely to at least partially reflect year-on-year variations in journal rankings.

¹ "Best Paper Rate" is an indicator of the probability of publishing highly cited papers (proportion of publications from a given institution in the 10% most cited publications in their subject area and publication year) and "Best Journal Rate" is an indicator of the probability of publishing in the most influential journals (ratio of papers published in the top quartile journals in their subject areas); institutions were included in the analysis if they had more than 500 publications in this category in the period 2008–2012.

20. As pointed out before, in interpreting these bibliometric indicators it is important to recognize the limitations of this approach, and to emphasize the importance of publishing with collaborators from LMICs in journals that may not be the highest ranking but do ensure the dissemination and impact of work of local or regional relevance.

Table 2: IARC publications in top 20% of journals in their subject category in 2015(only the top 5 subject categories for IARC papers published in 2015 are shown)

JOURNAL SUBJECT CATEGORY	No. Journals in SC ^a	Highest IF in SC	20% IF of SC ^b	No. publ. in SC	No. publ. in top 20%	% in top 20%
ONCOLOGY	209	144.8	4.4	147	101	69%
PUBLIC, ENVIRONMENTAL & OCCUPATIONAL HEALTH	164	10.0	2.9	61	34	56%
NUTRITION DIETETICS	77	10.0	3.7	33	12	36%
MULTIDISCIPLINARY SCIENCES	57	41.5	2.2	28	28	100%
GENETICS & HEREDITY	167	37.0	4.6	22	15	68%

Legend: IF = Impact Factor; SC = Subject Category

^{*a}</sup> A given journal can appear in more than one subject category.*</sup>

^b This figure represents the impact factor of the journal at the limit of the 20% top journals.

21. On occasion the Agency liaises with publishers to produce "special issues" of journals dedicated to a particular topic. There were two notable examples developed during the reporting period:

- The journal Cancer Epidemiology published in December 2015 a special issue on the 4th Edition of the European Code Against Cancer (Cancer Epidemiology, Volume 39, Supplement 1, Pages S1–S152), a project coordinated by IARC with financial support from the EC. The special issue contains 14 articles written by the working groups of experts who formulated the Code, detailing the rationale and scientific evidence underpinning the recommendations.
- The same journal is scheduled to publish in mid-2016 a special issue on Cancer in Central and South America. This will present the results of a collaboration between IARC and RINC, guided by an Editorial Board comprised of regional experts and additional international collaborators. The project analysed data from 18 countries and 53 cancer registries in the region. The special issue will include an overview and 14 cancer site-specific articles, where the descriptive epidemiology of each cancer site is presented in depth. Supplementary material on etiological factors as well as on preventive measures implemented in the region for each of the cancers will be provided online at IARC's website.

22. The total number of IARC books sold in 2015 was 12 838 copies (see Table 3), with over 95% of sales from the "Blue Books", the WHO Classification of Tumours Series. This represents a slight drop in sales in relation to recent years, probably reflecting differences in the timing of release of the "Blue Books" volumes between years.

Year	Total sales	Sales of 'Blue Books'
2012	15 077	14 048 (93%)
2013	15 733	15 054 (96%)
2014	16 279	14 844 (92%)
2015	12 838	12 235 (95%)

Table 3: Publications – Volume of sales

23. Total revenue from the sales of IARC books amounted to \in 700 413 in 2015 (see Table 4). This is slightly lower than in the two previous years, due to the fluctuation in volume of sales, but still represents a substantial increase on the revenue from sales prior to 2012, reflecting the renegotiation of the contract with WHO Press. The planned production of volumes in the 4th Edition of the "Blue Books" in 2016–17, including two updates of earlier volumes, is anticipated to lead to an upturn in the total volume of sales.

Table 4: Publications – Revenue from sales (in Euros^a)

Year	Revenue from sales of all publications	Revenue and percent from 'Blue Books'	Revenue from sales paid to IARC ^b
2012	609 634	582 749 (96%)	600 619
2013	761 404	744 694 (98%)	759 782
2014	789 892	741 222 (94%)	787 494
2015	701 098	688 124 (98%)	700 413

^{*a*} Publications revenue figures were presented in Swiss Francs in previous years ^{*b*} After freight charges were deducted from overall figure

24. Table 5 provides the figures for the total number of visitors to the most popular IARC websites in 2015: the number of visitors continues to show progression on all these sites. For example, the average number of visitors per day to the IARC homepage rose by 40% in 2015 compared to 2014, while the average number of visitors to the Monograph website almost doubled (90% increase), from 490 to 934 per day.

Web site	Total visitors	Average visitors / day	Total visits	Average visits / day
IARC Home page	595 296 (418 885)	1630 (1147)	793 329 (588 862)	2173 (1613)
Monographs	341 205 (178 850)	934 (490)	500 608 (308 389)	1371 (844)
GLOBOCAN	263 891 (225 614)	722 (618)	473 743 (434 420)	1297 (1190)

Visitor: A user that visits a given site. The initial session by an individual user during any given date range is considered to be an additional visit and an additional visitor. Any future sessions from the same user during the selected time period are counted as additional visits, but not as additional visitors.

Visit: The number of times a visitor has been to the site (number of individual sessions initiated by all visitors). If a user is inactive on the site for 30 minutes or more, any future activity will be attributed to a new session.

25. The most popular downloads from the Agency's websites are presented in Table 6. The IARC Monographs evaluation of red and processed meat (Vol. 114) generated unprecedented public and media interest and this is clearly reflected in the number of downloads of the press release and associated Q&A. The fact that 8 out of the 15 most frequent downloads from IARC websites also relate to the IARC Monographs underscores the high profile and significant public health interest in this flagship programme.

26. The text book "Cancer Epidemiology: Principles and Methods" continues to be in high demand (in advance of the release of the new edition in conjunction with the London School of Hygiene and Tropical Medicine, UK) as do some of the volumes of the "Blue Books" available online (third editions). Also noteworthy is the relatively high number of downloads for Press Release 231, on IARC's response to a scientific article published in the journal Science claiming most types of cancer are due to "bad luck"; this was a topic with significant public and media interest and it is encouraging to note that the Agency's response to this article attracted substantial attention.

27. The consistent increase in access and downloads from IARC's websites demonstrates the growing demand for electronic media as a vehicle for dissemination of information on the Agency's activities and research findings. IARC's communications strategy has responded by placing a greater emphasis on online media, providing access to a broad range of mainly free resources, alongside charging for a few materials whose production is dependent on publication revenue.

Table 6: Most popular downloads from IARC and Monographs websites (ranked by 2015 data and compared to 2014 figures)

Item	Dow	nloads
Item	2014	2015
Press Release 240: IARC Monographs evaluate consumption of Red Meat and Processed Meat (Eng, Fr, Sp, Cn)	N/A	737 287
Cancer Epidemiology: Principles and Methods	248 293	257 133
World Cancer Report 2003	39 879	231 765
IARC Monographs Classification List	173 910	221 713
Monograph Volume 100E: Personal Habits and Indoor Combustions	58 123	151 556
IARC News on Monographs Vol 112 (Some Organophosphate Insecticides and Herbicides: Diazinon, Glyphosate, Malathion, Parathion, and Tetrachlorvinphos)	N/A	132 693
Q&A on Monographs Volume 114 evaluations (Red Meat and Processed Meat)	N/A	113 578
"Blue Book" Pathology and Genetics of Tumours of the Digestive System – Third Edition	88 674	94 286
Press Release 231: Most types of cancer not due to "bad luck" IARC responds to scientific article claiming that environmental and lifestyle factors account for less than one third of cancers	N/A	76 154
"Blue Book" Pathology and Genetics of Tumours of the Lung, Pleura, Thymus and Heart – Third Edition	55 234	70 852
Monograph Volume 82: Some Traditional Herbal Medicines, Some Mycotoxins, Naphthalene and Styrene	65 225	61 988
Monograph Volume 99: Some Aromatic Amines, Organic Dyes, and Related Exposures	48 879	58 518
Cancer Incidence in Five Continents Vol. X	N/A	57 958
Press Release 208: Radiofrequency electromagnetic fields	57 186	55 594
World Cancer Report 2008	32 887	51 488

Voluntary contributions to IARC (grants and contracts)

28. The number of grant submissions continued to increase with a total of 174 new applications and requests for funding in 2015. For comparison, the number of submissions in the previous years was: 167 (2014), 150 (2013), 126 (2012) and 110 (2011). Thus the figures for 2015 represent close to a 60% increase in the number of submissions compared to five years earlier.

29. In 2015, the Agency signed extra-budgetary contracts to a total value of \in 26 287 966. The total value of signed contracts is significantly higher than in 2014 confirming that last year's figures were not a sign of a downward trend, but more likely due to the conjunction of circumstances described in the Director's Report to the 57th session of the Governing Council.

30. The substantial increase in the total value of signed contracts had an effect also on the value of funds attributed to IARC. In total €16 717 320, 63.6% of total value of signed contracts, was attributed to IARC. This is around four times higher than in 2014 and more than double the highest amount from the previous four years. It should be noted that the exceptional figures are a reflection of some specific high-value awards, notably a grant from the Bill and Melinda Gates Foundation, USA, for the extended follow-up of the HPV vaccination study in India for a total of

€6 685 504 (US\$ 7 330 596) (see document <u>GC/58/16</u>) and the five-year extension award from the National Cancer Institute, USA, for the IARC Monographs programme for a total of €3 466 065 (US\$ 4 295 000) (see document <u>GC/57/14</u>). Such awards will by nature be intermittent in occurrence. Nevertheless, even taking account of these exceptional successes, the remaining value of funds attributed to IARC in 2015 of €6 243 410 was 50% higher than the €4 175 192 attributed in 2014. This is an exceptionally good performance in the current economic climate.

31. In response to an increasingly competitive environment for grants, IARC has deliberately enhanced its efforts to sign direct agreements with funding organizations. This is reflected in the upward trend in the proportion of direct contracts signed: for example, in 2010 39% of the agreements IARC entered into were of direct nature, while the figure was 54% in 2015.

Year	Number of applications	Number of signed contracts	Total value of signed contracts ^(a) (in Euros)	Value attributed to IARC (in Euros)	Voluntary contribution expenditure ^(b) (in Euros)
2012	126	49	35 485 000	7 939 000	11 968 340
2013	150	43	22 985 385	7 210 095	9 955 587
2014	167	51	6 443 450	4 175 192	12 698 866
2015	174	76	26 287 966	16 717 320	10 548 429

Table 7: Extra-budgetary funding

(a) The figures show total budgets of all grants signed irrespective of whether IARC is coordinating the studies or not.

(b) Voluntary contribution expenditure as reported in the IARC Financial Report and Financial Statements, which includes amount passed through to partners for IARC coordinated projects.

32. Total expenditure from Voluntary Contributions in 2015 was typical of the values observed in previous years, at €10.5 million (Table 7). This amount translates to a proportion of expenditure on the scientific programme funded from the Voluntary Contributions of just under 40%, representing 34% of the overall expenditure by the Agency in 2015 (Table 8).

Table 8: Expenditure against voluntary contributions (VC), regular budget (RB)and percentage comparison (in Euros)

Year	Regular budget (RB)	VC/ RB+VC ^(a)	Regular budget for scientific programme	VC/ RB2+VC
2012	19 516 960	38.0%	14 101 595	45.9%
2013	19 902 355	33.3%	14 383 283	40.9%
2014	19 989 084	38.8%	15 622 140	44.8%
2015	20 435 407	34.0%	15 884 925	39.9%

(a) Voluntary contribution expenditure taken from the Table on extra-budgetary funding.

33. IARC has always faced restrictions on eligibility for funding from many national agencies due to its legal status as an international organization. Of particular concern are recent developments in the EU, historically one of the major funding partners of the Agency. A first negative assessment of IARC's eligibility occurred in 2013, when the European Research Council (ERC) stipulated that IARC did not satisfy the minimal requirements, which required the participation of at least one

Member State, or one Associated State, or of an organization satisfying the criteria for being designated an "International European Interest Organization". This excluded IARC from being either the sole applicant, or the lead applicant to the ERC, although there remains the possibility to participate in multi-partner actions. On the same basis and most recently, IARC was declared ineligible for the single beneficiary actions of the EC Marie Skłodowska-Curie Action (MSCA) COFUND programme, even though the Agency had received two previous awards to support its Post-doctoral Fellowship Programme. IARC hopes that its external funding base will not further erode, and seeks the support of the Governing Council in addressing this area of concern specifically in relation to the EU.

34. It is important to note that voluntary contributions are essential in enabling IARC to implement its programme. The extra-budgetary funds add value to the assessed contributions from Participating States. The success in obtaining voluntary contributions is also a measure of the competitiveness of IARC's research and of the degree of collaboration with other organizations. The above success has been achieved during a period of continuing pressures on research funding in many parts of the world and in the face of the limited range of funding sources for which IARC scientists are eligible to apply. Recognition of the need to continue to attract extra-budgetary funds and to diversify the sources of such funding was the reason to appoint a resource mobilization consultant (see document GC/58/15) to address this area more systematically.

Staff

35. Two key senior appointments were made since the last Governing Council session. Dr Marc Gunter was appointed as Head of the Section of Nutrition and Metabolism (NME) following the retirement of Dr Isabelle Romieu at the end of January; Dr Gunter was previously at the Department of Epidemiology and Biostatistics, Imperial College London, UK. The other senior appointment was of Mr Tamás Landesz, who was transferred from the WHO Regional Office for the Eastern Mediterranean to take up the position of Director of Administration and Finance (DAF) in early May 2016. Mr David Allen was transferred to the position of DAF of the WHO Regional Office for South-East Asia at the end of March 2016.

36. As of 1 March 2016 there were 334 people working at the Agency: 235 staff members and 99 Early Career and Visiting Scientists. For comparison the number of people working at the Agency in 2013, 2014 and 2015 was 308, 314 and 329 respectively.

37. Of the 221 fixed-term staff, 103 are professional staff (49 men; 54 women) and 118 general service staff (29 men; 89 women); in addition there are 14 temporary/short-term staff.

38. Of the 103 professional staff, 22 are in the support services; of the remaining 81 professional staff, 55 are funded on the regular budget and 26 from extra-budgetary sources. Since May 2015, 11 staff members have arrived at the Agency: 7 professional and 4 general service. Over the same time period, 10 staff members left the Agency (3 due to retirement): 3 professional and 7 general service.

39. The Early Career and Visiting Scientists include 27 students, 47 post-doctoral scientists of whom 25 are Fellows supported by IARC awards, and 25 Visiting Scientists, one of whom is a Senior Visiting Scientist awardee. Visiting Scientists spend different proportions of their time in the Agency.

40. Overall, the IARC personnel come from more than 50 different countries worldwide and thus working at the Agency represents a remarkable opportunity to develop generic skills for working in an international environment. Of the staff on fixed-term contracts, 90% are from Participating States (199 out of 221).

41. The IARC Recognition Programme rewarded two IARC personnel for their outstanding contributions to the work of the Agency in 2015. This award recognizes contributions made through the display of creativity, commitment and/or dedication during the course of the year, and is particularly significant because it is based on nomination from peers across the Agency. The awardees received a certificate and have been given the opportunity to undertake training in a professional area of their interest towards their career progression.

42. IARC launched the Learning and Development (L&D) Framework in 2015 to provide a systematic approach to L&D activities. The Framework is designed to align the learning needs of IARC staff to the Agency's requirements for meeting the 2016–2020 MTS and to enhance future career development. Dedicated support has been introduced in this area to ensure continuity of staff development activities and further innovation. Alongside the Framework, the 2016–2017 L&D priorities were also defined with inputs from various staff surveys. In addition, the dedicated L&D Intranet pages were created and regularly updated to provide access to learning resources and details including a calendar of upcoming learning activities.

Education and Training

43. The Education and Training Group (ETR) oversees the implementation of the generic training programmes of the Agency and supports the training activities carried out by several IARC scientific Groups within the context of their collaborative research programmes. These activities are guided by the recommendations of the Agency-wide Advisory Committee on Education and Training (ACET), chaired by the ETR Head.

IARC Fellowships Programme

44. The Agency awarded 22 post-doctoral fellowships in 2015, comprising 10 new awards and 12 extensions for a second year (see Table 9). Of the total, 20 post-doctoral fellowships were co-funded by the EC MSCA FP7-COFUND programme and the IARC regular budget, of which 13 (65%) were awarded to scientists from LMICs. The remaining two awards were funded through bilateral agreements: one extension by the IARC-Australia Postdoctoral Fellowship Programme, funded by Cancer Council Australia, and a second extension by the IARC-Ireland Postdoctoral Fellowship Programme, funded by the Irish Cancer Society. Return Grants (value US\$ 10 000 each) were awarded to Fellows from Benin, Thailand and the People's Republic of China to help with research initiatives on return to their home country.

45. The number of fellowships awarded continued to increase in line with the commitments made in the current EC COFUND grant. Support from this funding source is critical for the IARC Fellowships Programme but, as described above, after two consecutive successful applications for EC MSCA FP7-COFUND grants, in 2010 and 2013 respectively, ETR submitted a new application under the EC MSCA H2020-COFUND-2015 call, for a total of €1 179 000 for which the Agency was deemed ineligible. A letter of appeal was submitted and the outcome is pending at the time of writing this report. Failure to renew this grant will lead to a significant reduction in the number of training opportunities for Fellows unless alternative sources of funding can be identified. In the funding raising efforts detailed in document GC/58/15, the Director is requesting that IARC Training Fellowships be prioritized for assignment of undesignated voluntary contributions.

46. As announced at the Governing Council in May 2015, the Agency negotiated a new bilateral training agreement with the Research Council of Norway, for the training of postdoctoral scientists from Norway at IARC. The agreement has now been signed and the call for proposals will be opened in early May 2016.

Year	No. of IARC fellowships awarded	No. of Fellows from low- and middle-income countries
2012	19 (12 + 7)	11
2013	18 (10 + 8)	11
2014	21 (13 + 8)	12
2015	22 (10 + 12)	13

 Table 9: Education and Training – IARC Fellowships

Post-doctoral fellowships (new + second year renewals), including IARC-Australia and IARC-Ireland Fellows

47. In 2015 the Agency granted one Senior Visiting Scientist Award to Professor Fanghui Zhao, Cancer Institute/Hospital, Chinese Academy of Medical Sciences (CAMS), Department of Cancer Epidemiology, Beijing, People's Republic of China.

48. A total of 156 Early Career and Visiting Scientists (consisting of 81 new arrivals and 75 extensions) worked at IARC during 2015. ETR is responsible for all administrative procedures relating to their arrival, hosting and departure from IARC, and has been working with the Information Technology Services and an external firm in the development of a suitable management tool to streamline these administrative processes, which will be tested during the course of 2016.

49. ETR works closely with the 'Early Career Scientist Association' (ECSA) to improve the quality of training and hosting environment at IARC for post-doctoral scientists and students, and to promote regular dialogue between these groups, ETR and IARC management. A highlight of the year was the second ECSA Scientific Day successfully organized by the association in April 2015, with the support of ETR.

50. Within the framework of the IARC Postdoctoral Fellowship Charter, which was established with the objective of offering a more structured approach to postdoctoral training at IARC, and also in collaboration with ECSA, ETR continued to develop the programme of internal generic skills courses. Nine courses took place in 2015, attended by more than 60 Early Career Scientists.

Collaboration with the Human Resources Office was strengthened to ensure that the L&D activity intranet portal set up in 2015 integrates courses for all categories of personnel, and that future planning of courses is coordinated.

IARC Courses

51. The IARC Summer School on Cancer Epidemiology took place from 15 June to 3 July 2015 comprising two Modules: Cancer Survival Methods for Cancer Registries (week one) and Cancer Epidemiology (weeks two and three). Fifty-seven participants from 36 countries attended the Summer School, approximately 95% from LMICs. Additional financial support for this course was provided by the National Cancer Institute, USA, the Nordic Cancer Union (NCU), and the Klinik und Poliklinik für Gynäkologie, Martin Luther University, Halle, Germany.

52. In collaboration with the Union for International Cancer Control (UICC), the UICC-IARC Development Fellowship enables one participant of the IARC Summer School to return to IARC for a period of one to three months for further training and collaborative work. In 2015, the initiative was expanded thanks to the increased contribution of UICC, which supported the return of three Summer School participants, from Ethiopia, Ukraine, and Serbia.

53. In addition to the IARC Summer School, the Courses Programme also provides support to specialized courses and workshops organized or co-organized by the scientific Groups of the Agency (see Table 10 and Annex 1). In 2015 this support was centered primarily on the increasing number of courses on cancer registration resulting from the Global Initiative on Cancer Registry Development (GICR) initiative, and on training activities targeting biobanks (i.e. BCNet and B3Africa).

54. As shown in Table 10 below, the number of scientists and health professionals trained in 2015 at the IARC Summer School or at one of the IARC specialized and advanced courses and workshops conducted worldwide continues to steadily rise.

Year	No. courses organized	No. different countries	No. courses in LMICs	No. participants
2012	9	4	3	312
2013	15	7	8	566*
2014	17	14	12	576
2015	24	14	11	647

Table 10: Education and Training – IARC Courses

* includes the 120 persons who participated in one or more of the six webinars on CanReg5 that were offered in 2013

55. Partnership initiatives have been pursued to develop new e-Learning materials and courses. The collaboration established in this area with the Institut Català d'Oncologia (ICO), Spain, led to the launch of a joint online course in cancer epidemiology in Spanish aimed at Latin American countries (http://www.e-oncologia.org/cursos/postgrado-fundamentos-metodologicos-investigacion). Of the 33 registered participants, 18 from LMICs are supported through the partnership (from Colombia, Costa Rica, Guatemala, Honduras, Mexico, Paraguay and Peru).

56. Throughout 2015, seminars and training sessions both at IARC and at external locations were captured on video through the system set up by the Agency the previous year. This led to the development of an IARC WebTV which will be launched in 2016.

Research Support

57. A number of initiatives aimed at developing and streamlining the Agency's administrative processes, managing risks, and supporting the work of the scientific Sections and Groups were continued or launched in 2015 by the Section of Support to Research (SSR).

58. Communication to all categories of personnel and groups within the Agency on SSR plans and initiatives continues to be one of the priorities for the Section. This is achieved through a number of ad-hoc internal meetings, through regular reporting to the Senior Leadership Team (SLT), and more broadly to the whole of the Agency's personnel in the monthly Director's News. In an effort to capture feedback and suggestions for improvement on the services provided, SSR carries out annual Services Surveys. The analyses of the results from these surveys and planned actions are published on the IARC intranet.

59. The repeated unqualified certificate of IARC's 2015 accounts by the external board of auditors reiterates the continued strong performance of the Agency's financial controls and procedures. As an additional testimony to the accountability systems put in place at IARC, an EC Verification exercise on three EC funded projects in 2015 found full adherence to applicable rules and regulations.

60. Significant progress was also made during 2015 in the development of a number of new and updated policy and procedural documents, enhancing the clarity around IARC's administrative modalities for both internal and external users. In the coming year efforts will concentrate on automating procedures towards achieving enhanced efficiency and effectiveness.

Building works, repairs and renovation

61. IARC's deteriorating infrastructure continues to represent a major risk to the continued operation of the Agency. A number of incidents occurred over the last year involving heating system failures, new instances of falling masonry from the tower facade, rain infiltration and numerous pipe leaks. The frequent repairs to the piping are becoming increasingly difficult to manage as the whole system is failing. Additional emergency repair works on all the outside pillars were carried out by the City of Lyon to prevent other major incidents of falling masonry. Waterproofing repairs were also carried out on the entrance hall roof, however rain infiltration through the pillars of the tower cannot be addressed without full renovation works.

62. Several power cuts (six incidents between July 2015 and March 2016) led to repair work to fully secure the back-up power system. The electricity provider informed the Agency that there may be additional power cuts in the future, if there is a repeat of exceptional weather circumstances like the 2015 heatwave. The electrical backup system is now fully operational and the technical team will pay renewed attention to the maintenance and improvement of the electrical system as a whole.

63. A new full technical assessment of the tower was conducted by the City of Lyon in December 2015 at the request of the Secretariat, in order to identify the priority repairs that would enable the Agency to continue to operate in its current premises until the construction of the Nouveau Centre. The report is not yet available, however IARC continues to communicate on a day-to-day basis with City of Lyon technical services to keep them informed of all the incidents.

64. The plan to relocate and expand some of the Agency's research activities mentioned in the previous Report was implemented. Following the refurbishment of the 13^{th} floor, the Biomarkers Group (BMA) relocated to the tower, with the mass spectrometer platform installed there and offices in newly refurbished rooms in the 6^{th} and 7^{th} floors. This move vacated three laboratories in the Biological Resource Centre building which are currently being refurbished. Some offices in the 2^{nd} floor were also refurbished to create an open space accommodating the expansion of the Resource Mobilization and Grant Office.

65. In light of the terrorist attacks in 2015, IARC carried out several internal security assessments (audit on the global security of the compound and a specific audit on all the real-time systems monitoring different features of the security systems) and requested the branch of the Police dedicated to public security to carry out an assessment of security at IARC. The results of these three audits led to the development of a security improvement plan, which began with the replacement of all the old interphones. Several other actions will follow over the coming months.

IARC Ethics Committee

66. The IARC Ethics Committee (IEC) is composed of fifteen senior individuals from diverse nationalities with complementary expertise in epidemiology, genetics, oncology, law and bioethics:

External members

- Dr Samar Al-Homoud (Saudi Arabia), surgeon (from September 2015)
- Dr Denis Azoulay (France), dentist (lay member from December 2014)
- Dr Michel Baduraux (France), medical doctor (from June 2014)
- Dr Safia Bouabdallah (France), jurist (from June 2014)
- Professor Béatrice Fervers (France), oncologist (Chair)
- Dr Emmanuelle Rial-Sebbag (France), ethicist (from June 2014)
- Dr Hans Storm (Denmark), epidemiologist (from June 2014)
- Professor Paolo Vineis (UK), epidemiologist (Vice-Chair)
- Dr Beatrice Wiafe Addai (Ghana), surgeon (from September 2015)

IARC and WHO staff members

- Dr Behnoush Abedi-Ardekani (Genetic Epidemiology Group, IARC) (from January 2016)
- Dr Ghislaine Scélo (Genetic Epidemiology Group, IARC)
- Dr Abha Saxena (Secretariat of the Ethics Research Review Committee, WHO Geneva)
- Dr Salvatore Vaccarella (Infections and Cancer Epidemiology Group, IARC)

67. Two external members, Dr Groesbeck Parham and Professor Isaac Adewole, terminated their terms of office in 2015, after serving on the Committee for two years. They were replaced by

Dr Al-Homoud and Dr Wiafe Addai. Two IARC staff members, Dr Eduardo Seleiro from the Office of the Director and Ms Evelyn Bayle from the Screening Group, finished their term of office in December 2015 after serving on the Committee for four and two years, respectively. Dr Behnoush Abedi-Ardekani from the Genetic Cancer Susceptibility Group joined the Committee. Dr Marie-Pierre Grosset, lay member of the Committee, stepped down after completing a one-year term of office in October 2015.

68. The IEC met five times during 2015 (in February, April, June, September, November) and evaluated 41 projects:

- 37 projects were approved after ethical review;
- 2 projects were given conditional approval subject to the receipt of further information;
- 2 projects were not cleared and the Principal Investigators were asked to prepare a revision for resubmission;
- 17 projects previously reviewed were resubmitted to the IEC.

69. In addition to the IEC, the IARC Ethics Advisory Group (EAV), a group of international bioethics experts comprising Professor Sheila McLean, Professor Michael Parker and Dr Rodolfo Saracci, provides guidance on an ad hoc basis on areas where specialist expertise might not be available within the IEC. The IEC did not need to consult the EAV in 2015.

70. Following the renewal of several IEC members, and to ensure training in ethical review of research proposals involving human subjects in the context of international health research ethics, all IEC members completed the Research Ethics Online Training course provided by the Global Health Network (<u>https://globalhealthtrainingcentre.tghn.org/elearning/research-ethics/</u>) adapted from an e-Learning course and resource package developed by the WHO, and thus obtained the WHO certificate on Research Ethics.

71. To support the IARC staff and facilitate the submission of projects to the IEC, the Rules and Procedures and Standard Operating Procedures were updated; in particular, updated procedures for review of studies involving the re-analysis of previously collected data and/or previously measured biomarkers were implemented.

External relations

Meetings

72. In line with its mission to promote collaborative research, the Agency hosted a number of major meetings in Lyon. The full list of meetings held at IARC since May 2015 is provided in Annex 2.

Collaboration with the Union for International Cancer Control (UICC)

73. IARC works closely with UICC in a number of specific areas and projects. Notably, the UICC is one of the key partners in the GICR, participating in its governance and taking a lead in the area of advocacy. Training and capacity development is another important area of collaboration, where UICC provides valued support to fellowships and courses hosted by the Agency, including the joint "UICC-IARC Development Fellowship" award to participants in the IARC Summer School in Cancer

Epidemiology. The Agency participated in the UICC World Cancer Leaders Summit in Istanbul on 18 November 2015 and is involved in the planning for the UICC World Cancer Congress to be held in Paris from 31 October to 3 November 2016.

74. The UICC is one of the leading partners in the International Cancer Control Partnership (ICCP), together with the Centre for Global Health, National Cancer Institute, USA. The ICCP brings together organizations supporting international cancer control initiatives, to coordinate efforts supporting the development and implementation of national cancer control plans. IARC is a partner in this initiative contributing primarily in the area of technical cooperation for cancer surveillance, and in the ICCP Cancer Control Leadership Forum regional workshops.

Collaboration with International Atomic Energy Agency (IAEA)

75. The main area of collaboration with IAEA remains the imPACT missions, which provide assessments of cancer control capacity and needs in LMICs, coordinated by IAEA's Programme Action for Cancer Therapy (PACT). Senior IARC staff participate in many of these missions, and the Agency is a co-signatory of the mission reports, together with WHO and PACT, with responsibility over the assessments and recommendations for the ministries of health on the development of policy, infrastructure and services in the areas of cancer surveillance and cancer prevention and early detection. The Agency also works closely with IAEA-PACT on the UNIATF joint programmes on cancer control and cervical cancer, described above.

Collaboration with WHO

76. The close relationship with WHO, which enables the translation of the evidence produced by IARC into policy and advice to countries, is an essential and unique asset of the Agency. IARC continued to support WHO's leadership in the implementation of the Global NCD Action Plan 2013–2020 (GAP) and the associated Global Monitoring Framework. IARC staff participated in the expert consultation on "Updating Appendix 3 of the Global NCD Action Plan", a key component of the GAP which identifies 81 policy recommendations for cost-effective interventions on NCDs, including 14 classified as "very cost-effective and affordable interventions for all Member States".

77. The Agency participated with WHO HQ and Regional Offices in the organization of the "First Global Meeting of National NCD Programme Managers and Directors", which brought representatives from 135 WHO Member States to Geneva in February 2016, to exchange insights and experiences on how to strengthen national responses to the NCD-related targets in the Sustainable Development Goals (SDG), and to fulfil the national time-bound commitments included in the 2014 UN Outcome Document on NCDs.

78. IARC and WHO collaborate widely in a range of specific projects and activities providing support to cancer prevention and control programmes. Cervical cancer is a particularly active area of technical cooperation between IARC and WHO. Of particular note is the Collaborative Programme between the Prevention and Implementation Group at IARC and the WHO Department of Reproductive Health and Research. This collaboration is enabling evaluation of the implementation of rapid HPV testing at the primary and secondary care levels in the United

Republic of Tanzania and the design of a large randomized study to evaluate different screen-and-treat approaches to cervical cancer suitable for application in African countries.

79. The Agency's work frequently contributes to the evidence-base which enables WHO to support Member States in relation to cancer control. The establishment of the WHO-IARC Liaison Officer in the Cluster of Noncommunicable Diseases and Mental Health at WHO HQ is helping improve coordination and communication. In the specific area of IARC Monographs and Handbooks of Cancer Prevention, IARC and WHO are cooperating to establish standardized procedures in relation to the planning, conduct and communication of future evaluations by the Agency. These procedures also involve further initiatives to brief national authorities of forthcoming evaluations to allow time for preparation of public communications prior to the release of Monograph and Handbook conclusions.

80. The Agency continues to actively seek and develop opportunities for direct collaborative agreements between IARC and WHO Regional Offices for technical support to regional programmes, for example, in the areas of cancer surveillance and research, and screening and early detection. An Action Plan for 2015–2016 was signed between IARC and the WHO Regional Office for the Eastern Mediterranean (EMRO), building on the success and expanding the scope of an Action Plan agreed between IARC and WHO EMRO for the previous biennium. An analogous Action Plan covering collaborations in the same areas is being discussed with the WHO Regional Office for Europe (EURO).

Annex 1: Specialized	l courses organized or	co-organized by the	e IARC scientific Groups in 2015

Course title	Location	Number of participants	External collaborations
Cancer registration	Russian Federation	34	WHO EURO; European Network of Cancer Registries (ENCR); Petrov Research Institute of Oncology, Saint Petersburg, Russian Federation
Second training course on cervical pathology – ESTAMPA study	Cuernavaca, Mexico	20	Instituto de Salud Publica de Mexico (INSP); WHO Department of Reproductive Health and Research; UICC; Pan American Health Organization (PAHO)
Reunión de Consenso de Colposcopia – ESTAMPA	Bogotá, Colombia	26	San José Hospital, Bogotá, Colombia
Colposcopy and LEEP procedures in the management of abnormal cytology	Myanmar	34	National Cancer Institute Thailand; TSCCP, Thailand; University of Medicine, Magway, Myanmar; AOGIN
Training course on early detection of breast, cervical, colorectal, and oral cancer	Sri Lanka	110	National Cancer Institute Sri Lanka; WHO Country Office; UICC
Cervical cancer screening and management of pre-invasive lesions	Thailand	20	National Cancer Institute Thailand; TSCCP, Thailand
Workshop on colposcopy	Morocco	30	African Organisation for Research and Training in Cancer (AORTIC)
GloboDiet reference manager application training: Malta	Online course	5	EU-MENU
GloboDiet train-the-trainers course: Malta	Online course	7	EU-MENU
GloboDiet train-the-trainers course: Malta	Lyon, France and online course	7	EU-MENU
GloboDiet introduction training – organization of the work: Ireland and Africa	Lyon, France and online course	3	EU-MENU
GloboDiet training for Latin America (Brazil and Mexico): specific procedures to develop GloboDiet-related files	Online courses (continuous)	7	EU-MENU
Evaluation of GloboDiet in the African context	Online courses	37	EU-MENU

Course title	Location	Number of participants	External collaborations
CanReg5 course	The Gambia	5	MRC Gambia, AFCRN (IARC Regional Hub for Sub-Saharan Africa)
Canreg5 training	Mexico	4	INCAN Mexico
Cancer registry workshop	Islamic Republic of Iran	20	Iran University of Medical Sciences; Ministry of Health, Islamic Republic of Iran
Cancer registry, basic data analysis	Thailand	35	National Cancer Institute Thailand; IACR
Population-based cancer registry workshop	Indonesia	70	United States National Cancer Institute; Jakarta Cancer Registry
CanReg5 course, Pre-meeting Workshop, 37th IACR Meeting	India	20	IACR; Tata Memorial Centre; CDC
Examining solutions for cancer registration in low- and middle-income countries, Pre-meeting	India	30	IACR; Tata Memorial Centre; CDC
Workshop, 37th IACR Meeting Population-based cancer registry workshop	Panama	22	PAHO/INC
Cancer Registration in the Gulf Countries: principles and updates	Kuwait	19	Gulf Centre for Cancer Control & Prevention (GCCP); Kuwait Ministry of Health
BCNet training	Lyon, France	25	LMICs Biobank and Cohort Building Network (BCNet)

Annex 2: Meetings held at IARC in 2015

Meeting Title	Date
51 st Session of IARC Scientific Council	28-30 January
EU Cancer Control (CanCon) WP9 Coordination	12-13 February
IARC Ethics Committee (IEC)	25 February
IARC Monographs Vol. 112: "Some Organophosphate Insecticides and Herbicides: Diazinon, Glyphosate, Malathion, Parathion and Tetrachlorvinphos"	3-10 March
ARIMMORA	9-13 March
HEX (Hub Executive Group) GICR	16-17 March
Fellowship Selection Committee	26-27 March
WHO-IARC Global Hepatitis Programme	26 March
IARC Tumour Seminar "Difficult questions in renal cancer research"	1-2 April
Cancer Control in the Gulf Region	1-2 April
IARC Ethics Committee (IEC)	8 April
Gambia Hepatitis Intervention Study (GHIS) Study Group	13 April
Simplified TNM Consensus meeting – Cancer Staging for cancer registries in LMICs	16-17 April
Data Safety Monitoring Board (DSMB) for the ESTAMPA study	5-6 May
SEMI-NUC: External Advisory Board	11-12 May
57 th Session of IARC Governing Council	13-14 May
IARC 50 th anniversary	15 May
IARC-GICR Working Group	1-2 June
IARC Monographs Vol. 113: "Some Organochlorine Insecticides and Some Chlorphenoxy Herbicides"	2-9 June
CO-CHER: Molecular Biology and Pathology	4-5 June
IARC Ethics Committee (IEC)	17 June
ACCIS	17-19 June
SIIL HPV Vaccine Study Protocol Development Working	22-23 June
CO-CHER Mental Health and Risk Communication Expert	23-24 June
Cancer Prevention Europe Workshop	6-7 July
Progress on the Pooled Lead Cohort Study	30 July
Environment and Child Health International Birth Cohort Group	12-13 August
WHO-IARC meeting regarding the IARC Monographs Programme and related WHO programmes on Food Safety and Nutrition	3 September
IARC Fellowship Programme EC MSCA FP7-COFUND Grant Review	11 September
Fraction de Cancers Attribuables aux Modes de Vie et aux Facteurs Environnementaux en France Métropolitaine	21-22 September
Comité de Pilotage - Fraction de Cancers Attribuables aux Modes de Vie et aux Facteurs Environnementaux en France Métropolitaine	23 September
Statistical Methods in Nutritional Epidemiology, with applications to the EPIC Study	24-25 September
IARC Ethics Committee (IEC)	30 September
Paediatric Cardiology – Project	1-2 October
IARC Monographs Vol. 114: "Red Meat and Processed Meat"	6-13 October
37 th IACR annual conference	7-10 October
IARC ctDNA Workshop	20 October
BCNet Training and General Assembly	3 November
IARC Ethics Committee (IEC)	18 November
Annual Meeting of the Scientific Advisory Board for the Chrysotile Study	26-27 November
Energy Balance and Obesity Workshop	7-8 December
CO-CHER Partners and Experts	11-12 December